## Index

Abdominal muscles transverse, muscular cause of pelvic Alpha adrenergic agonists, treatment for myofascial pain pain, 773 syndrome, 783 Abdominal wall and myofascial pain syndrome American Fertility Society, 824 Amitriptyline, for neuropathic pain, 789 bimanual examination, 783 complications Amniocentesis and fetal anemia, 923 from MTrP injections, 783 Anal area, pain area, in pelvic pain, 773 Anemia and Doppler patterns, 931 toxicity, 783 Anococcygeal, pain area, in pelvic pain, 773 compression of MTrPs, 783 anterior ilium, pain area, in pelvic pain, 773 muscles, evaluating, 783 Anterior thigh, pain area, in pelvic pain, 773 one finger search for jump sign, 783 Anticonvulsants, treatment for myofascial pain synpain map, 783 drome, 783 treatment Anti-inflammatory drugs, treatment for myofascial pain bupivacaine, 783 syndrome, 783 icing, 783 Anxiety, cognitive behavioral therapy for chronic pelvic lidocaine, 783 pain and, 804 preparing patient for, 783 procaine, 783 Anxiety and chronic pelvic pain, 804 Aorta, imaging, 890 stretching exercises, 783 a priori risk and Down syndrome, 897 trigger point injections, 783 Arteries, Dopplers in IUGR and Abnormal bladder function and diagnosis of chronic pelmiddle cerebral, 931 vic pain, 804 umbilical, 931 Abnormal ductus venosus (DV), 931 uterine, 931 Activity management, cognitive behavioral therapy for Atypical dysmenorrhea, chronic pelvic pain and, 749 chronic pelvic pain and, 804 Atypical lesions and endometriosis, 749 Acupuncture, treatment for myofascial pain syndrome, Autonomic nervous system 783 function, in chronic pelvic pain, 797 Acute pain overview of, 797 role of, 797 role of, in chronic pain, 797 Adenomyosis, chronic pelvic pain and, 749 Autonomic Symptom Profile and chronic pain, 797 Adenomyosis and diagnosis of chronic pelvic pain, 804 Adhesiolysis and chronic pelvic pain, 747 Adhesions chronic pelvic pain and, 749 and laparoscopy adhesiolysis for pelvic pain, trial for, 749 Bandwidth and ultrasound, 878 chronic pelvic inflammatory disease, 749 Behavioral interventions, treatment option for chronic pelvic adhesions, 749 pelvic pain, 804 pelvic pain, 749 Behavioral modification, as therapeutic approach to in-Adhesions, chronic pelvic pain and, 749 terstitial cystitis, 811 Benign cystic mesothelioma, chronic pelvic pain and, Adhesions, laparoscopic finding in chronic pelvic pain, 749 Adhesions and diagnosis of chronic pelvic pain, 804 Biofeedback Adhesions and endometriosis, 749 as therapeutic approach to interstitial cystitis, 811 Adnexal cysts, chronic pelvic pain and, 749 treatment for myofascial pain syndrome. 783 treatment option for chronic pelvic pain, 804 Adnexal mass, 749 Adverse neural tension and pelvic pain, 773 Biomedical model for chronic pelvic pain, 804 Afferent nerves, 767 Biometry, 897 Age-adjusted ultrasound risk assessment (AAURA), 897 Biophysical Profile Score and Dopplers in IUGR, 931 Allodynia, 811 Biopsychosocial model for chronic pelvic pain Alloimmunization and fetal anemia interventions for aspects of, 804 cause of, 923 phases of treatment, 804

## Index

Abdominal muscles transverse, muscular cause of pelvic Alpha adrenergic agonists, treatment for myofascial pain pain, 773 syndrome, 783 Abdominal wall and myofascial pain syndrome American Fertility Society, 824 Amitriptyline, for neuropathic pain, 789 bimanual examination, 783 complications Amniocentesis and fetal anemia, 923 from MTrP injections, 783 Anal area, pain area, in pelvic pain, 773 Anemia and Doppler patterns, 931 toxicity, 783 Anococcygeal, pain area, in pelvic pain, 773 compression of MTrPs, 783 anterior ilium, pain area, in pelvic pain, 773 muscles, evaluating, 783 Anterior thigh, pain area, in pelvic pain, 773 one finger search for jump sign, 783 Anticonvulsants, treatment for myofascial pain synpain map, 783 drome, 783 treatment Anti-inflammatory drugs, treatment for myofascial pain bupivacaine, 783 syndrome, 783 icing, 783 Anxiety, cognitive behavioral therapy for chronic pelvic lidocaine, 783 pain and, 804 preparing patient for, 783 procaine, 783 Anxiety and chronic pelvic pain, 804 Aorta, imaging, 890 stretching exercises, 783 a priori risk and Down syndrome, 897 trigger point injections, 783 Arteries, Dopplers in IUGR and Abnormal bladder function and diagnosis of chronic pelmiddle cerebral, 931 vic pain, 804 umbilical, 931 Abnormal ductus venosus (DV), 931 uterine, 931 Activity management, cognitive behavioral therapy for Atypical dysmenorrhea, chronic pelvic pain and, 749 chronic pelvic pain and, 804 Atypical lesions and endometriosis, 749 Acupuncture, treatment for myofascial pain syndrome, Autonomic nervous system 783 function, in chronic pelvic pain, 797 Acute pain overview of, 797 role of, 797 role of, in chronic pain, 797 Adenomyosis, chronic pelvic pain and, 749 Autonomic Symptom Profile and chronic pain, 797 Adenomyosis and diagnosis of chronic pelvic pain, 804 Adhesiolysis and chronic pelvic pain, 747 Adhesions chronic pelvic pain and, 749 and laparoscopy adhesiolysis for pelvic pain, trial for, 749 Bandwidth and ultrasound, 878 chronic pelvic inflammatory disease, 749 Behavioral interventions, treatment option for chronic pelvic adhesions, 749 pelvic pain, 804 pelvic pain, 749 Behavioral modification, as therapeutic approach to in-Adhesions, chronic pelvic pain and, 749 terstitial cystitis, 811 Benign cystic mesothelioma, chronic pelvic pain and, Adhesions, laparoscopic finding in chronic pelvic pain, 749 Adhesions and diagnosis of chronic pelvic pain, 804 Biofeedback Adhesions and endometriosis, 749 as therapeutic approach to interstitial cystitis, 811 Adnexal cysts, chronic pelvic pain and, 749 treatment for myofascial pain syndrome. 783 treatment option for chronic pelvic pain, 804 Adnexal mass, 749 Adverse neural tension and pelvic pain, 773 Biomedical model for chronic pelvic pain, 804 Afferent nerves, 767 Biometry, 897 Age-adjusted ultrasound risk assessment (AAURA), 897 Biophysical Profile Score and Dopplers in IUGR, 931 Allodynia, 811 Biopsychosocial model for chronic pelvic pain Alloimmunization and fetal anemia interventions for aspects of, 804 cause of, 923 phases of treatment, 804

Birth defects, ultrasound sensitivity for diagnosis of, 882 Black lesions and endometriosis, 749 Bladder malignancy, chronic pelvic pain and, 749 Bladder-origin pain potassium sensitivity tests, 811 Blood velocity in fetal anemia hemoglobin value in, 923 middle cerebral artery PSV and, 923 fetal anemia correction, effects on, 923 Botulinum toxin A, 811 treatment for myofascial pain syndrome, 783 Brain sparing, as fetal systemic vascular response in IUGR, 931 Breathing exercises, treatment option for chronic pelvic pain, 804

Bronchopulmonary sequestrations (BPS), 868 Brown lesions and endometriosis, 749 Buttock, pain area, in pelvic pain, 773

Carbamazepine, for neuropathic pain, 789 Carbon lesions and endometriosis, 749 Carcinoma of the colon, chronic pelvic pain and, 749 Cardiac defects at birth, 890 delivery in tertiary care centers, studies on, 890 Causalgia, definition of, 797 Centralization, as fetal systemic vascular response in IUGR, 931 Central nervous system abnormalities and ultrasound screening, 882 Central sensitization in spinal cord surgery, 767 Cerclage and TVU, 947 women with, 947 Cervical length (CL) cross-sectional studies of, 947 Cervical polyps, chronic pelvic pain and, 749 Cervical stenosis, chronic pelvic pain and, 749 assessment of funneling, 947 predictive gestational age, 947 schematic of TVU cervical measurements, 947 uterine segment contractions, 947

short cervix and PTB, 947 ultrasound techniques of, 947 cerclage and TVU, 947 cervical assessment, 947 cross-sectional studies, 947 gestational age and cervical assessment, 947 high-risk singletons, 947 labor induction, predicting success of, 947 non-randomized studies, 947 PPROM, predicting latency in, 947 preterm birth, prediction of, 947 preterm birth based on abnormal TVU, 947 preterm labor, evaluation of, 947 randomized trials, 947

short cervix and PTB, 947 transabdominal ultrasound (TAU), 947

transvaginal ultrasound vs. digital examination of twins, 947 ultrasound cervical assessment, other uses of, 947 women with cerclage, 947 Choroid plexus cysts, 897 Chronic appendicitis and diagnosis of chronic pelvic

pain, 804 Chronic endometritis, chronic pelvic pain and, 749 Chronic intermittent bowel obstruction, chronic pelvic

pain and, 749 Chronic pain autonomic nervous system, role in, 797 causalgia, 797 definition of, 797 etiology of, 811 neuropathology of, 811 pathogenesis of, theories for, 811

Chronic pelvic inflammatory disease, laparoscopic find-

ing in chronic pelvic pain, 749 Chronic pelvic pain (CPP) adhesiolysis, study of, and, 747 adhesions, 749 autonomic nervous system, function in, 797 autonomic symptom profile, 797 biomedical model for, 804 biopsychosocial models for, 804 childhood sexual abuse and, 804 as complex regional pain syndrome, treatment of objective assessment, 797 physician visit, 797 symptoms of, 797 types of therapy, 797

visceral hypersensitivity, 797 complex regional pain syndrome and, 747 and complex regional pain syndromes (CRPS), 797. See also Complex regional pain syndromes

(CRPS) definition of, 811, 749 description of, 804 diagnoses of, 804 duration of, 749

endoscopic diagnostic and therapeutic modalities, 749 expansion of receptive fields and, 747

healthcare utilization, 804 hypothalamus-pituitary-adrenal (HPA) axis, 804

and interstitial cystitis

definition of, 811 diagnosing cystoscopy, 811 glomeralizations, 811 intravesical potassium, 811 NIDDK diagnostic criteria, 811 pain, location of, 811 questionnaires, 811 sensitivity test (PST), 811 symptoms of, 811 etiology of, 811

flares, 811 hypertonic muscle dysfunction, 811 myofascial pain, 811 pathogenesis of, theories for, 811 pelvic floor muscles, 811 prevalence of, 811

biopsychosocial model, 804

symptom exacerbation, 811 phases of treatment, 804 Coherent Image Formation, 839 symptoms of, 811 Colitis, chronic pelvic pain and, 749 treatment for Complex regional pain syndrome (CRPS) and chronic botulinum toxin A, 811 gabapentin, 811 pelvic pain (CPP) autonomic nervous system mast cell activation, stabilization and reduction in hydroxyzine, 811 in chronic pain, role of, 797 overview of, 797 pentosanpolysulfate sodium (PPS), 811 autonomic nervous system function sacral nerve root stimulation, 811 in chronic pelvic pain, 797 tricyclic antidepressant amitriptyline, 811 chronic pelvic pain as complex regional pain synurgency/frequency, 811 drome, treatment of, 797 literary critiques, 767 laparoscopic pain mapping under conscious sedation, multidisciplinary team approach, 804 patient sensitivity, 804 pain, acute and chronic, 797 pelvic floor muscles, 811 pelvic pain mapping form, 797 and peripheral neuropathies, diagnosis of visceral chronic pelvic pain and extremity pain in abdominal wall examination, 789 CRPS, 797 genitofemoral neuropathy, 789 Complex regional pain syndromes (CRPS I and II), 797 iliohypogastric neuropathy, 789 Congenital cystic adenomatoid malformations (CCAM). ilioinguinal neuropathy, 789 lateral femoral cutaneous neuropathy, 789 Congenital diaphragmatic hernias (CDH), 868 maladaptive neuronal plasticity, 789 Congenital heart disease neuroma formation, 789 antenatally diagnosed, 890 pudendal neuropathy, 789 early antenatal detection of, 890 screening before surgery, 789 risk factors for, 890 somatic nerves, role in pain, 789 second trimester screening trigger points, 789 five-chamber view, 890 viscerosomatic convergence, 789 four-chamber view, 890 physical abuse and, 804 Connective tissue and pelvic pain, 773 potential etiologic mechanisms, classification of, 749 Conotruncal abnormalities and five-chamber view of fepotential visceral sources of, 749 tal heart, 890 prevalence of, 749 Conscious laparoscopic pain mapping (CLPM) psychological phenomena in, biologic bases for, 804 definition of, 749 role of laparoscopy in, 749 procedure, 749 somatic sources of, 749 results of, 749 spinal cord windup phenomenon and, 747 Constipation and diagnosis of chronic pelvic pain, 804 surgery and, 747 Cordocentesis, diagnosis of, in fetal anemia, 923 surgical studies, 767 Cribriform peritoneal defects and endometriosis, 749 Cystic hygroma, 897 symptoms of, 797 Cystoscopy, 811 treatable causes of ovarian remnant syndrome, 749 postoperative peritoneal cysts, 749 treatment of cognitive behavior therapy (CBT), studies, 804 intravesical dimethyl sulfoxide (DMSO), 811 intravesical heparin, 811 Dedicated 3D probes for three-dimension ultrasound, 839 multidisciplinary approach, 804 Depotleuprolide, treatment for endometriosis, 749 Depression multimodal approach, 811 urothelium therapy, 811 and chronic pelvic pain, 804 control, cognitive behavioral therapy for chronic pelviscerosomatic convergence and, 747 Chronic urethritis and diagnosis of chronic pelvic pain, vic pain and, 804 804 and diagnosis of chronic pelvic pain, 804 Chronic urinary tract infection, chronic pelvic pain and, Determination of situs and fetal heart disease, 890 749 Detrusor, pain area, in pelvic pain, 773 Chylothoraces, 868 Detrusor dyssynergia, chronic pelvic pain and, 749 Clear papules lesions and endometriosis, 749 Diagnosis of IUGR, 931 Coccygeus, muscular cause of pelvic pain, 773 Dietary restrictions, as therapeutic approach to interstitial Coccygodynia, disorder of musculoskeletal system, 773 cystitis, 811 Coccyx, pain area, in pelvic pain, 773 Diverticular disease, chronic pelvic pain and, 749 Cochrane Collaboration systematic review, 767, 824 Doppler flow patterns in intrauterine growth restriction Coded Excitation, 839 (IUGR), 931 Cognitive behavior therapy (CBT) and chronic pelvic Dopplers, arterial and venous, in IUGR IUGR, diagnosis of

Doppler in IUGR fetus management of, 931

middle cerebral arteries, 931 precordial venous Dopplers, 931 umbilical arteries, 931 uterine arteries, 931 IUGR, prediction of, 931 systematic Doppler evaluation, 931 middle cerebral arteries, 931 normal Doppler flow patterns ductus venosus, 931 hemodynamics in IUGR, 931 inferior vena cava, 931 integrated fetal testing, 931 middle cerebral artery (MCA), 931 precordial veins, 931 umbilical arteries, 931 umbilical vein, 931 uterine arteries, 931 Doppler velocimetry and fetal assessment, 931 gestational age dependence and, 931 intrauterine death or damage vs. prematurity, risk of, in intrauterine growth restriction (IUGR), 931 Dorsal horn, 811 Dorsal root ganglia, 767 Down syndrome antenatal screening for, 897 genetic sonogram, 897 identifying 3DUS, 850 fetal iliac angle measurements, 850 non-visualized nasal bone, 850 likelihood ratio derivation, 897 major structural abnormalities with, 897 maternal serum alpha fetoprotein (MSAFP) and trisomy, 897 minor structural abnormalities, 897 physical characteristics of, 897 risk adjustment, 897 screening, second trimester, 897 antenatal screening for, 897 markers, 897 sonographic findings, 897 ultrasound, risk modification of, 897 screening for biometry, 897 choroid plexus cysts, 897 echogenic bowel, 897 echogenic intracardiac focus, 897 fetal long bone length, 897 fetal nasal bone, 897 hypoplasia of middle phalanc of fifth digit, 897 iliac wing angle, 897 nasal bone, absent, 897 nuchal fold in, 897 other markers, 897 pvelectasis, 897 racial differences, 897 sandal gap, 897 two-vessel umbilical cord, 897 ventriculomegaly, 897 serum screen, 897 "triple screen," 897

trisomy 13 fetuses, 897

trisomy 18 fetuses, 897

Turner syndrome, 897
Doxepin, for neuropathic pain, 789
Drug therapy, treatment for myofascial pain syndrome, 783
Dry needling, treatment for myofascial pain syndrome, 783
Ductus venosus and Dopplers in IUGR, 931
Dyspareunia
disorder of musculoskeletal system, 773
and endometriosis, 824

Echogenic bowel and Down syndrome screening, 897 Echogenic foci and Down syndrome screening, 897 Echogenic intracardiac focus, 897 Endometrial polyps, chronic pelvic pain and, 749 Endometriomas, 749 Endometriosis and diagnosis of chronic pelvic pain, 804 disorder of musculoskeletal system, 773 gonadotropin-releasing hormone agonists, 749 laparoscopic finding in chronic pelvic pain, 749 and laparoscopy accurate diagnosis, 749 appearances of, 749 atypical lesions of, 749 definition of, 749 functional characteristics of, 749 laparoscopic evaluation, 749 near-contact laparoscopy, 749 occult endometriosis, 749 preoperative ultrasound, 749 literary critiques, 767 medical treatment of, controlled trials, 749 and pelvic pain American Fertility Society staging system for, 824 association between, studies on, 824 characteristics linking, 824 Cochrane Collaboration systematic review, 824 depth and location, 824 forms of endometriosis, 824 Hill's rules of causation, application of, 824 Koch's postulates for causation, application of, 824 link between, studies on, 824 pain, definition of, 824 understanding, 824 surgical studies, 767 surgical treatment of, clinical trial, 749 trial of depotleuprolide, 749 chronic pelvic pain and, 749 and laparoscopy as cause of chronic pelvic pain, 749 definition of, 749 Estriol, 897 Exploratory laparotomy, 749

Fascia, as somatic source of chronic pelvic pain, 749 Fasciitis and diagnosis of chronic pelvic pain, 804

Fetal anemia Genital structures, pain area, in pelvic pain, 773 Genitofemoral neuropathy at-risk patients, monitoring, 923 blood velocity during, 923 genitofemoral nerve cause of, 923 correction of, and blood velocity, 923 invasive diagnosis of by amniocentesis, 923 by cordocentesis, 923 noninvasive diagnosis of by MCA-PSV longitudinally, 923 by MCA pulsatility index, 923 GI/GU by middle cerebral artery peak systolic velocity (MCA-PSV), 923 predictions of, 923 Fetal assessment and Doppler velocimetry, 931 Fetal ear length and Down syndrome screening, 897 Fetal echocardiography in abnormal fetal heart, 890 Fetal karyotype, 890 Fetal long bone length and Down syndrome, 897 Fetal systemic vascular responses in IUGR, 931 Fibromyalgia, disorder of musculoskeletal system, 773 First trimester cardiac screening Doppler interrogation of ductus venosus, 890 major abnormalities, prevalence of, 890 nuchal translucency, measurement of, 890 Five-chamber view of fetal heart conotruncal abnormalities, 890 Follicle cysts, 749 Forward venous velocities and precordial veins, 931 Four-chamber view of fetal heart abnormalities, detection of, 890 aorta, 890 determination of situs, 890 first trimester cardiac screening, 890 main pulmonary artery, 890 as screening tool for antenatal screening test, studies, 890 prenatal detection of congenital heart disease, 890 routine antenatal diagnostic imaging with ultra-Hematuria, 811 sound (RADIUS), 890 technical aspects of correctly obtaining, 890 evaluation, requirements for, 890 image, clinical factors affecting, 890 stepwise maneuvers for obtaining, 890 Free-hand method for three-dimensional ultrasound, 839

Gabapentin, 811 for neuropathic pain, 789 Hypertonus, treatment of, 811 Galvanic muscle stimulation, treatment for myofascial Hypoplasia pain syndrome, 783 and Down syndrome screening, 897 of middle phalanx of fifth digit, 897 Gastrointestinal disease and diagnosis of chronic pelvic Hypothalamus-pituitary-adrenal axis (HPA), 804 pain, 804 Gastrointestinal tract, as source of chronic pelvic pain, Hysrodistention, 811 749 Hysterectomies, 749 Gate control theory and chronic pelvic pain, 804 Hysterectomy-bilateral salpingo oophorectomy, 749 Genetic screening program for Down syndrome age-adjusted ultrasound risk assessment (AAURA), 897

sonographic score for, 897 Genetic sonogram, 897

Genital prolapse, chronic pelvic pain and, 749

anatomy of, 789 common injury of, 789 description of, 789 treatment for, 789 Genitourinary disease and diagnosis of chronic pelvic pain, 804 Genitourinary tract, as source of chronic pelvic pain, 749 cystic mass, determining origin of, 868 ultrasonography, 868 Glandular lesions and endometriosis, 749 Gluteal hernia, 749 Gluteus maximus, muscular cause of pelvic pain, 773 Gluteus medius, muscular cause of pelvic pain, 773 Gonadotropic-releasing hormone agonists, 749 Greater trochanter, pain area, in pelvic pain, 773 Groin, pain area, in pelvic pain, 773 Growth restriction late in gestational age, diagnosing, 931 Gynecologic disease and diagnosis of chronic pelvic pain, 804 Gynecologic malignancies (late stage), chronic pelvic pain and, 749 Harmonic imaging description of, 839 insonated tissues, 839 low-frequency transducer, 839 in pregnancy, 839 HcG and Down syndrome screening, 897 Healthcare utilization and chronic pelvic pain, 804 Heart sparing, as fetal systemic vascular response in IUGR, 931 Hemodynamics in IUGR, 931 Hemorrhagic corpora lutea, 749 and diagnosis of chronic pelvic pain, 804 and laparoscopy, 749 High-risk singletons and ultrasound assessment, 947 Hind wasting, fetal systemic vascular response in IUGR, 931 Histrionic personality and chronic pelvic pain, 804 Hydroxyzine, 811 Hypertonic muscle dysfunction, 811

Icing, treatment for myofascial pain syndrome, 783 IC problem index, 811

IC symptom index, 811 Iliac wing angle, 897 Iliohypogastric neuropathy and chronic pelvic pain iliohypogastric nerve description of, 789 treatment for, 789 Ilioinguinal neuropathy ilioinguinal nerve common injury of, 789 description of, 789 nerve block, 789 treatment for, 789 Iliopsoas, muscular cause of pelvic pain, 773 Inferior hypogastric plexus, 767 Inferior vena cava and Dopplers in IUGR, 931 Inflammatory bowel disease, chronic pelvic pain and, Inguinal hernia, 749 Inguinal ligament, pain area, in pelvic pain, 773 Integrated fetal testing in IUGR, 931 Interactive video and ultrasound, 878 International Association for the Study of Pain, 824 Interstitial cystitis (IC), as disorder of musculoskeletal system, 773 Interstitial cystitis (IC) and chronic pelvic pain (CPP) definition of, 811 diagnosing cystoscopy, 811 glomeralizations, 811 hematuria, 811 hydrodistention, 811 intravesical potassium, 811 NIDDK diagnostic criteria, 811 pain, location of, 811 questionnaires, 811 sensitivity test (PST), 811 symptoms of, 811 etiology of, 811 exacerbation of symptoms, 811 flares, 811 hypertonic muscle dysfunction, 811 myofascial pain, 811 pathogenesis of, theories for, 811 pelvic floor muscles, 811 prevalence of, 811 symptoms of, 811 treatment for botulinum toxin A, 811 gabapentin, 811 mast cell activation, stabilization and reduction in hydroxyzine, 811 pentosanpolysulfate sodium (PPS), 811 sacral nerve root stimulation, 811 tricyclic antidepressant amitriptyline, 811 urgency/frequency, 811 Intrauterine contraceptive device, chronic pelvic pain and, 749 Intrauterine growth restriction (IUGR) and Doppler techniques, managing IUGR, diagnosis of Doppler in IUGR fetus, management of, 931 middle cerebral arteries, 931

precordial venous Dopplers, 931

umbilical arteries, 931

uterine arteries, 931

IUGR, prediction of, 931 normal Doppler flow patterns ductus venosus, 931 hemodynamics in IUGR, 931 inferior vena cava, 931 integrated fetal testing, 931 middle cerebral artery (MCA), 931 precordial veins, 931 progressive changes, 931 umbilical arteries, 931 umbilical veins, 931 uterine arteries, 931 Intravesical dimethyl sulfoxide (DMSO), 811 Intravesical heparin, 811 Intravesical therapy, as therapeutic approach to interstitial cystitis, 811 Ipsilateral spine, pain area, in pelvic pain, 773 Irregular antigens, 923 Irritable bowel syndrome chronic pelvic pain and, 749 and diagnosis of chronic pelvic pain, 804 disorder of musculoskeletal system, 773 Ischemic compression, treatment for myofascial pain syndrome, 783 Ischiatic hernia, 749 Ischiocavernous and bulbospongiosus, muscular cause of pelvic pain, 773 IUGR, prediction of, 931

Jump sign and myofascial pain syndrome, 783

Labor induction success of, predicting, 947 and ultrasound assessment, 947 Lamotrigine, for neuropathic pain, 789 Laparoscopic pain mapping under conscious sedation "Endometriosis USA" pelvic pain mapping form, 797 pain perception patterns, 797 visceral hypersensitivity, 797 Laparoscopy and adhesions adhesiolysis for pelvic pain, trial for, 749 chronic pelvic inflammatory disease, 749 pelvic adhesions, 749 pelvic pain, 749 and chronic pelvic pain decision to perform, basis for, 749 diagnoses adhesions, 749 endometriosis, 749 for endometriosis inspection, 749 exploratory laparotomy, 749 findings, 749 endosalpingiosis and as cause of chronic pelvic pain, 749 definition of, 749 hernias and, 749 ovarian cysts and

asymptomatic cysts, 749

laparoscopic evaluation, 749

functional cysts, 749

uncommon causes of, 749 compound imaging, 839 pelvic varicosities and, 749 connectivity, 839 role in chronic pelvic pain, 749 conventional imaging, 839 without apparent pathology, statements to patients Digital Imaging and Communications in Medicine hysterectomy, 749 (DICOM), 839 learn to live with pain, 749 miniaturization, 839 neurolytic procedure, 749 real-time spatial compound imaging, 839 pain is in your head, 749 telemedicine and teleconsulting advances, 839 there is nothing wrong, 749 Markers for Down syndrome, 897 in women with no uterus or ovaries Massage, treatment for myofascial pain syndrome, 783 adhesions in, 749 Maternal serum alpha fetoprotein (MSAFP) and Down endometriosis, 749 syndrome, 897 ovarian remnant syndrome, 749 MCA-PSV postoperative peritoneal cysts, 749 measurements of, fetal anemia predictions, 923 Lateral femoral cutaneous neuropathy timing second fetal transfusion with, 923 lateral femoral cutaneous nerve Meckel's diverticulum and diagnosis of chronic pelvic description of, 789 pain, 804 etiologies for, 789 Medroxyprogesterone and pelvic vascular congestion, symptoms of, 789 Leiomyomas Mental health care providers and chronic pelvic pain, 804 and diagnosis of chronic pelvic pain, 804 Mexiletine HCL, for neuropathic pain, 789 laparoscopic finding in chronic pelvic pain, 749 Middle cerebral arteries (MCA) Leiomyomata, chronic pelvic pain and, 749 and Dopplers in IUGR, 931 Lesions and misdiagnosis in chronic pelvic pain, 749 and IUGR diagnosis, 931 Levator ani, muscular cause of pelvic pain, 773 Middle cerebral artery peak systolic velocity (MCA-Ligaments, as somatic source of chronic pelvic pain, 749 Likelihood ratio derivation, 897 correct technique for, 923 Liver sparing, as fetal systemic vascular response in fetal anemia, noninvasive diagnosis of, 923 IUGR, 931 Minor structural abnormalities, 897 Local anesthetics, treatment for myofascial pain syn-Multidisciplinary pain management and chronic pelvic drome, 783 pain, 804 Low back, pain area, in pelvic pain, 773 Multidisciplinary team approach to chronic pelvic pain Lower abdomen, pain area, in pelvic pain, 773 meta-analytic review of, 804 Lower abdominal region, pain area, in pelvic pain, 773 treatment approaches for, 804 Lower prelumbar space, 767 treatment plan gate control theory, 804 long-term progress, 804 psychological assessment, 804 Muscle relaxants, treatment for myofascial pain syndrome, 783 Muscles, as somatic source of chronic pelvic pain, 749 Magnetic resonance imaging evaluation of, referral for, 868 Musculoskeletal dysfunction, screening for fetal dysmorphology, 868 objective examination CNS, 868 connective tissue, 773 fetal magnetic resonance, 868 external muscle examination, 773 MR fetal survey, 868 internal muscle examination, 773 MR pelvimetry, 868 muscular component, 773 peripheral nerves (adverse neural tension), 773

structure, 773 treatment, 773

exacerbation, 773

stress or trauma, 773

characteristics of, 783

complications

toxicity, 783

Myofascial pain syndrome (MFPS), 811

from MTrP injections, 783

muscle spasms, characteristics and causes of, 773

Myofascial disease and diagnosis of chronic pelvic pain,

purposes of musculoskeletal system, 773

oral history of

chirp coded excitation, 839

Coherent Image Formation, 839

Coded Excitation, 839

evaluation of, feterial rof, sos fetal dysmorphology, 868
CNS, 868
fetal magnetic resonance, 868
MR fetal survey, 868
MR pelvimetry, 868
MR.volumetry, 868
placenta, 868
safety
long-term repetitive exposure, 868
of mother and fetus, 868
thorax
benefits of MR, 868
CDH, indicators of poor prognosis with, 868
GI/GU, 868
lung volumes, 868
ultrasound, 868
Main pulmonary artery, imaging, 890
Maladaptive neuronal plasticity and chronic pelvic pain, 789
Manufacturer-specific innovations in ultrasound

description of, 783
description of, 783
musculoskeletal pain, 783
pathophysiology, 783
somatovisceral and discerosomatic reflexes, 783
treatment of
bupivacaine, 783
icing, 783
lidocaine, 783
preparing patient for, 783
procaine, 783
stretching exercises, 783
trigger point injections of abdominal wall, 783
types of, 783

Narcissistic personality and chronic pelvic pain, 804 Nasal bone, absent, 897 Near-contact laparoscopy, 749 Nerve entrapment syndrome and diagnosis of chronic pelvic pain, 804 Neuroma formation and chronic pelvic pain, 789 Neuroplasticity, 767 Nortriptyline for neuropathic pain, 789 Nuchal fold, Down syndrome screening and, 897 Nuchal translucency for coarctation of aorta, possible marker of, 890 Nuchal translucency-based screening advances in, 909 beyond aneuploidy, 909 in clinical practice, implementing, 909 current and future status of, 909 cystic hygroma, 909 for Down syndrome, 909 and ductus venosus flow in first trimester, 909 fetal nuchal translucency (NT) measurement, 909 with first and second trimester serum markers: integrated testing, 909 with first trimester maternal serum markers: combined testing, 909

Obstetrics
magnetic resonance imaging in
evaluation of, referral for, 868
fetal dysmorphololgy
CNS, 868
GI/GU
cystic mass, determining origin of, 868
ultrasonography, 868
MR fetal survey, 868
MR pelvimetry, 868
MR volumetry, 868

long-term repetitive exposure, 868

multiple marker serum screening panel, 909

and nasal bone in first trimester, 909

in multiple gestations, 909

for other aneuploidy, 909

quad test, 909

placenta, 868

thorax CDH, indicators of poor prognosis with, 868 lung volumes, 868 ultrasound, 868 recent advances in ultrasound and, 838 Obtruator internus, muscular cause of pelvic pain, 773 Oral agents, as therapeutic approach to interstitial cystitis, 811 Ovarian cysts laparoscopic finding in chronic pelvic pain, 749 laparoscopy and asymptomatic cysts, 749 functional cysts, 749 laparoscopic evaluation, 749 uncommon causes of, 749 Ovarian ovulatory pain, chronic pelvic pain and, 749 Ovarian plexus nerves, 767 Ovarian remnant syndrome, chronic pelvic pain and, 749 Ovarian retention syndrome (residual ovary syndrome), chronic pelvic pain and, 749 Ovulatory pain, chronic pelvic pain and, 749 Pain acute, role of, 797 allodynia, 811 C-fibers (silent afferents), 811 chronic, definition of, 797 definition of, 749 dorsal horn, 811 neuropathic output states neurogenic inflammation, 811 viscero-muscular reflex, 811 viscero-visceral hyperalgesia, 811 noxious stimuli, 811 purpose of, 811 signals, 811 tissue injury and, 811 Pelvic bones, as somatic source of chronic pelvic pain, 749 Pelvic congestion syndrome, chronic pelvic pain and, 749 Pelvic denervation procedures literary critiques, 767 Pelvic floor, pain area, in pelvic pain, 773 Pelvic floor muscle dysfunction treatment of, 811 Pelvic floor muscles, 811 Pelvic floor tension myalgia, disorder of musculoskeletal system, 773 Pelvic inflammatory disease, chronic pelvic pain and, 749 Pelvic neuroanatomy afferent nerves, 767 central sensitization in spinal cord surgery, 767 cross talk, 767

dorsal root ganglia, 767

neuroplasticity, 767

inferior hypogastric plexus, 767

lower prelumbar space, 767 neuropathways signaling pain, 767

ovarian plexus nerves, 767

Precordial venous Dopplers, 931

anomalies, definition and ascertainment of, 882

routine ultrasound in

Pregnancy

pelvic splanchnic nerves, 767 cost-benefit analysis of, 882 presacral neurectomy, 767 sacral splanchnic nerves, 767 diagnostic limitations of, 882 factors affecting sensitivity, 882 uterosacral nerve ablation, 767 other conditions, 882 viserosomatic convergence, 767 Pelvic pain prevalence of, 882 and endometriosis repeated screening, 882 American Fertility Society staging system for, 824 risk category, 882 association between, studies on, 824 characteristics linking, 824 sonographers, expertise of, 882 Cochrane Collaboration systematic review, 824 spectrum of anomalies, 882 depth and location, 824 forms of, 824 Prenatal cytogenetic diagnosis, 897 forms of endometriosis, 824 Presacral neurectomy (PSN), 767, 749 Hill's rules of causation, application of, 824 Koch's postulates for causation, application of, 824 excision/ablation alone, 767 link between, studies on, 824 Preterm birth, prediction of, by TVU pain, definition of, 824 understanding, 824 musculoskeletal screening and interventions to prevent, 947 musculoskeletal system, as source of, 773 in preterm labor pregnancies, 947 physical therapy as treatment option, 773 in twin pregnancies, 947 screening for musculoskeletal dysfunction, 773 Pelvic splanchnic nerves, 767 Pelvic varicosities tency in, 947 laparoscopic finding in chronic pelvic pain, 749 Primary dysmenorrhea, 767 and laparoscopy, 749 Pelvic vascular congestion pain, 804 anatomy ovarian circulation during menarche, 831 anxiety, 804 ovarian veins, 831 depression, 804 spermatic veins, 831 educating client, 804 uterine veins, 831 valves, 831 evaluations, 804 clinical outcomes, 831 pain, 804 pelvic congestion syndrome characteristic clinical feature of, 831 vic pain, 804 patient outcomes, 831 radiologic features of, 831 symptoms of, 831 Pudendal neuropathy therapy for, 831 pudendal nerve vulvar varices, 831 anatomy of, 789 renal transplant donors, imaging studies with, 831 description of, 789 ultrasound imaging, 831 injury of, 789 vascular physiology, 831 symptoms of, 789 venous congestion, 831 treatment for, 789 Pentosanpolysulfate sodium (PPS), 811 Peripheral nerves and pelvic pain, 773 Peritoneal defects and endometriosis, 749 Phenytoin, for neuropathic pain, 789 Physical abuse in childhood and chronic pelvic pain, 804 Physical therapy, as therapeutic approach to interstitial cystitis, 811 Piriformis, muscular cause of pelvic pain, 773 Placenta and magnetic resonance imaging, 868 Posterior thigh, pain area, in pelvic pain, 773 Postoperative peritoneal cysts, chronic pelvic pain and, Post-traumatic stress disorder and chronic pelvic pain, 804 Precordial veins and Doppler flow patterns, 931

benefits of, 882 outcomes in fetuses with anomalies, effects of, 882 sensitivity of, for birth defects diagnosis, 882 systemic fetal Doppler evaluation in, 931 with endometriosis excision/ablation vs. in asymptomatic high-risk singleton pregnancies, 947 in asymptomatic singleton pregnancies, 947 Preterm labor and ultrasound assessment, 947 Preterm premature rupture of membranes (PPROM), la-Psycho-education, treatment option of, for chronic pelvic Psychological assessments and chronic pelvic pain Psychological disorders and diagnosis of chronic pelvic Psychosexual dysfunction and diagnosis of chronic pel-Pudendal nerve entrapment/pudendal neuralgia, disorder of musculoskeletal system, 773 Pyelectasis and Down syndrome screening, 897

Ouadratus lumborum, muscular cause of pelvic pain, 773

Racial differences and Down syndrome screening, 897 Radiation cystitis, chronic pelvic pain and, 749 RADIUS study and ultrasound benefits, 882 Real-time spatial compound imaging, 839 Rectus, muscular cause of pelvic pain, 773 Recurrent, acute cystitis, chronic pelvic pain and, 749 Recurrent, acute urethritis, chronic pelvic pain and, 749 Red lesions and endometriosis, 749

Reflex sympathetic dystrophy (RSD), 797

Relaxation techniques, cognitive behavioral therapy for chronic pelvic pain and, 804

Relaxation training, treatment option for chronic pelvic pain, 804

Remote fetal ultrasound diagnosis, 878

Renal dysplasias, 868

Renal transplant donors, imaging studies with, 831

Reproductive tract, as source of chronic pelvic pain, 749 Residual accessory ovary, chronic pelvic pain and, 749

Residual ovary syndrome, 749

Retrograde conduction and precordial veins, 931

Risk adjustment and Down syndrome, 897

Sacral nerve root stimulation, 811

Sacral splanchnic nerves, 767

Sacroiliac joint and buttock, pain area, in pelvic pain, 773 Saline, treatment for myofascial pain syndrome, 783

Sandal gap, 897

Sciatic hernias and chronic pelvic pain, 749

Scoliosis and diagnosis of chronic pelvic pain, 804

Self-hypnosis, treatment option for chronic pelvic pain, 804

Serum screen for Down syndrome, 897

Sex education, cognitive behavioral therapy for chronic pelvic pain and, 804

Sex therapy, treatment option for chronic pelvic pain, 804 Sexual abuse in childhood and chronic pelvic pain, 804

Short stature and Down syndrome, 897 Skeletal disease and diagnosis of chronic pelvic pain, 804

Skeletal dysplasias, 868

Somatic disorders and chronic pelvic pain, 749

Somatic neuropathic pain

dermatome distribution of peripheral somatic nerves. 789

diagnosis of

abdominal wall examination, 789

role in pain, 789

screening before surgery, 789

trigger points, 789

etiologies of, 789

peripheral somatic nerves of pelvis, 789

treatment for, 789

Somatization and diagnosis of chronic pelvic pain, 804

Somatovisceral reflex, 783

Sonograms

genetic, in Down syndrome screening, 897

antenatal screening for, 897

likelihood ratio derivation, 897

major structural abnormalities with, 897

maternal serum alpha fetoprotein (MSAFP) and trisomy, 897

minor structural abnormalities, 897

physical characteristics of, 897

risk adjustment, 897

screening for

biometry, 897

choroid plexus cysts, 897

echogenic bowel, 897

echogenic intracardiac focus, 897

fetal nasal bone, 897

hypoplasia of middle phalanc of fifth digit, 897

iliac wing angle, 897

nasal bone, absent, 897 nuchal fold in, 897

other markers, 897

pyelectasis, 897

racial differences, 897

sandel gap, 897

sonographic findings, 897

two-vessel umbilical cord, 897

ultrasound, risk modification of, 897

ventriculomegaly, 897

serum screen, 897

"triple screen," 897

trisomy 13 fetuses, 897

trisomy 18 fetuses, 897

Turner syndrome, 897

in pregnancy, 882

Sonographers

expertise of, 882

Sonographic score and Down syndrome screening, 897

Sphincter ani, muscular cause of pelvic pain, 773

Staging systems and endometriosis, 749

Stone/urolithiasis, acute urethritis, chronic pelvic pain and, 749

Stress management, cognitive behavioral therapy for chronic pelvic pain and, 804

Stretching, treatment for myofascial pain syndrome, 783 Superficial transverse perinei, muscular cause of pelvic pain, 773

Superficial yellow-brown patches and endometriosis, 749

Superior hypogastric plexus block (SHPB), 749

Sympathetically maintained pain (SMP)

role of autonomic nervous system in, 797 Symptomatic pelvic relaxation, chronic pelvic pain and,

Systemic Doppler evaluation, 931

Telesonography, 878

Three-dimensional ultrasonography (3DUS)

cleft lip and palate

bilateral cleft defect by 3D multiplanar and surface rendering, 850

bilateral cleft lip and palate by 3D surface rendering,

unilateral cleft lip and intact palate, multi-planar imaging, 850

3DUS applications during pregnancy

practical considerations about, 850

fetal circulation

Gray-scale information and Doppler ultrasonography, 850

placental circulation, 850

pulmonary sequestration, 850

fetal syndromes

Down syndrome, 850 3DUS, use of, 850

fetal iliac angle measurements, 850

fetus with Down syndrome, midline plane, 850

fetus with Down syndrome, parasagittal plane, 850 identification of, 850

non-visualized nasal bone, 850

image display methods

fetal circulation, power Doppler and volume rendering, 850

multi-planar display and surface rendering of fetal foot, 850

post-processing algorithms for spinal bifida analysis, 850

"Real-time (4D)", 850

volume and surface rendering, 850

micrognathia

definition of, 850

2D ultrasonography, 850

false appearance of, 850

normal mid-sagittal facial profile, 3D multi-planar imaging, 850

severe micrognathia, 850

spina bifida

analysis of (S1 level), 850

analysis of (T12 level), 850

bony spine defects, volume rendering, 850

ultrasound volume acquisition techniques

active matrix arrays technology, 850

electromagnetic motion tracking system, 850

four dimensional echocardiography, 850

free-hand tracking, 850

inertial tracking technology, 850

integrated volume probe, 850

mechanical volume acquisition devices, 850

two-dimensional and "1.5 dimensional" transducer array technology, 850

ultrasound volume analysis

classification, 850

3D-multiplanar view of face, 850

image segmentation, 850

manual identification of surface boundaries, 850

pixels or voxels, 850

removal of extraneous voxels, 850

rendering box adjustment, 850

rotation of volume data, 850

semi-automated segmentation of embryo, 850

semi-automated segmentation procedure, 850

surface rendering, enlarged regions of interest, 850 surface rendering of fetal face, 850

volume measurements by 3DUS

fractional limb volumes, 850

limb volumes, 850

quantitative applications for, 850

Three-dimensional ultrasound, 878

acquiring data, freehand and utilizing dedicated 3D probes, 839

cervix and placenta, assessing with, 839

description of, 839

fetal face visualization, 839

fetal weight estimation, 839

multiplanar reconstruction, 839

in obstetrics, 839

precise volume measurement, 839

Tissue injury and pain, 811

Topical Analgesics, treatment for myofascial pain syndrome, 783

Topiramate, for neuropathic pain, 789

Transabdominal ultrasound (TAU) and cervix, 947

Transcutaneous electrical stimulation, treatment for myofascial pain syndrome, 783

Translabial ultrasound, 947

Transvaginal ultrasound (TVU), 947

schematic of, cervical measurements, 947

vs. digital examination, 947

Trazodone, for neuropathic pain, 789 Trial of depotleuprolide and endometriosis, 749

Tricyclic antidepressant amitriptyline, 811

Tricyclic antidepressants, treatment for myofascial pain syndrome, 783

Trigger point injections, treatment for myofascial pain syndrome, 783

Trisomy 13 fetuses and Down syndrome, 897

Trisomy 18 fetuses and Down syndrome, 897

Tuberculous salpingitis, chronic pelvic pain and, 749

Tumor Necrosis Factor (TNF), 824

Turner syndrome, 897

Twins and ultrasound assessment, 947

Twin-to-twin transfusion and Doppler patterns, 931

Two-vessel umbilical cord, 897

Ultrasonography, 868

Ultrasound

antenatal screening, 897

of cervix, 947

Down syndrome, risk modification with

biometry, 897

markers, 897

risk adjustment, 897 obstetric, recent advances in, 838

practice patterns, 897

in pregnancy

anomalies, definition and ascertainment of, 882

benefits of, 882

cost-benefit analysis of, 882

diagnostic limitations of, 882

factors affecting sensitivity, 882

other conditions, 882

outcomes in fetuses with anomalies, effects of, 882

repeated screening, 882

risk category, 882

sensitivity of, for birth defects diagnosis, 882

sonographers, expertise of, 882 spectrum of anomalies, 882

remote interpretation of images

history of obstetrical care, 878 limitations of, 878

practical applications of, 878

technical aspects of, 878

second trimester ultrasonograher, 897

Ultrasound, treatment for myofascial pain syndrome, 783

Ultrasound assessment

cerclage and TVU, 947

cerclage for TVU short cervix, 947

of cervix

twins, 947

labor induction in, 947

latency in PPROM, 947

non-randomized studies, 947

PTB, preventing, based on abnormal TVU, 947

short cervix and PTB, 947

suspected preterm labor, 947

transvaginal ultrasound vs. digital examination, 947

trials, randomized, 947

Ultrasound contrast medium (UCM)

in adult echocardiography, 839

contrast medium, history of, 839

echoes, 839

fallopian tubes, 839

neoangiogenesis and, 839

size of, 839

using, 839

Ultrasound equipment

contrast agents, 839

economics, 839

harmonic imaging, 839

manufacturer-specific innovations, 839

safety

effects on tissue, 839

mechanical effects, risk of, 839

prolonged exposure, 839

three-dimensional ultrasound, 839

ultrasound, history of, 839

Ultrasound imaging and pelvic vascular congestion, 831

Umbilical arteries

and IUGR diagnosis, 931

and normal Doppler patterns, 931

Umbilical vein and Dopplers in IUGR, 931

Umbilical venous pulsations and Dopplers in IUGR, 931 Uninhibited bladder contractions, chronic pelvic pain and, 749

Uninhibited bladder contractions (detrusor dyssynergia),

chronic pelvic pain and, 749 Urethral caruncle, chronic pelvic pain and, 749

Urethral diverticulum, chronic pelvic pain and, 749

Urethral syndrome

chronic pelvic pain and, 749

disorder of musculoskeletal system, 773

Urgency-frequency, disorder of musculoskeletal system,

Urinary sphincter spasm, pain area, in pelvic pain, 773 Urolithiasis, chronic pelvic pain and, 749

Urothelium therapy, 811

Uterine arteries

and IUGR diagnosis, 931

and normal Doppler patterns, 931 Uterosacral nerve ablation, 767

Uterosacral neurectomy (USN), 749

Vagina, pain area, in pelvic pain, 773

Vaginismus, disorder of musculoskeletal system, 773

Vapocoolant sprays, treatment for myofascial pain syn-

drome, 783

Vascular physiology

venoconstriciton, 831 Veins, Dopplers in IUGR and

precordial, 931

umbilical, 931

Venoconstriction, 831

Venous Doppler, 931

Ventriculomegaly and Down syndrome screening, 897

Visceral disorders and chronic pelvic pain, 749

Visceral hypersensitivity and chronic pelvic pain, 797

Visceral pain syndromes

conceptual model for, 811 neuropathology of, 811

treatment of

intravesical dimethyl sulfoxide (DMSO), 811

intravesical heparin, 811

multimodal approach, 811

urothelium therapy, 811

Visceral pelvic pain neuropathway of, 767

Viscerosomatic convergence and chronic pelvic pain

description of, 789

Viscerosomatic reflex, 783

Viserosomatic convergence, 767

Vulvar varices and peripheral venous disease, 831

Vulvar vestibulitis syndrome, disorder of musculoskele-

tal system, 773

Vulvodynia, disorder of musculoskeletal system, 773

Wet heat, treatment for myofascial pain syndrome, 783 White lesions and endometriosis, 749